feces were determined at specified intervals. The efficacy of probiotic was studied in mice with well-established colonization. These mice received probiotic or not (control group). Counts of VRE and total enterococci in feces were determined at specified Intervals throughout the experiment.

*Results:* At baseline, all animals were colonized with non -Vancomycin resistant enterococci (mean for 7 days 5.7 log10 CFU/g), and Vancomycin resistant were not detectable. Following gastric inoculation with 5 x108 CFU of a clinical isolate of Vancomycin-resistant Enterococcus faecalis and receiving daily oral vancomycin (250 μg of vancomycin per ml), the strain colonized the gastrointestinal tract of 100% of mice (mean for 7 days 6.2 log10 mean CFU/g). Oral administration of L. rhamnosus GG suppressed growth of all enterococci in feces, including the vancomycin-resistant strain (mean 6.2 and 9.4 log10 CFU/g for treatment and control groups, respectively $p < 0.05$).

*Conclusion:* Our study demonstrated a significant reduction in the detection of VRE in fecal specimens of mice receiving probiotic and concluded this probiotic can reduce colonization of VRE. This research purposed use of probiotic instead of antibiotics in prevention and treatment of VRE infection.

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**40.016**

**Clostridium Difficile-associated Diarrhea with Hematochezia is Associated with Ulcer Formation**

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*Objective: Clostridium difficile*-associated diarrhea (CDAD) is a well-known iatrogenic infection. Typical endoscopic features include pseudomembranes and intervening normal mucosa. Clinically, diarrhea frequently occurs, but hematochezia is rarely observed. We investigated the background and endoscopic features of CDAD patients with hematochezia.

*Patients and Methods:* We investigated retrospectively endoscopic and clinical findings of twelve patients who showed evidence of C. difficile toxin A and underwent colonoscopy between April 2002 and July 2007.

*Results:* Eight patients were diagnosed as having CDAD and four patients with ulcerative colitis. Six of the eight patients with CDAD presented hematochezia, and four of them were diagnosed with hematological malignancies and received anti-cancer chemotherapy. Colonic ulcer was demonstrated in all CDAD patients with hematochezia and bleeding from the ulcer was endoscopically confirmed in all of them.

*Conclusions:* CDAD with hematochezia is closely associated with ulcer formation. Ulcers are thought to tend to occur during recovery from nadir after anti-cancer treatment. White blood cells may be indispensable for ulcer formation. Physicians should therefore pay attention to the occurrence of colonic ulcer, especially in patients with CDAD during recovery from nadir.

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**Study of Behavior and Enterotoxin Production of Staphylococcus aureus During the Manufacture and Ripening of Iranian White Cheese**

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*Keywords:* Iranian White Cheese; Staphylococcus aureus

The ability of Staphylococcus aureus to grow and enterotoxin production during the manufacture and storage of Iranian White Cheese and also the changes in pH, total solids, moisture and salt contents was studied. As far as microorganism can grow in relatively low temperature, pH, aw and high salt contents, also because this organism is the most important cause of food intoxications which is transmitted to man through dairy products, the possibility of its survival and growth is existed during the time of ripening period. Lyophilized S. aureus (ATCC 6538) was activated by two consecutive cultures in Brain and Heart Infusion Broth. The stock cultures were maintained in BHI Broth containing sterile glycerin and placed in Freezer. To determine the initial inoculum of S. aureus culturing and counting method and spectrophotometry were used. Pasteurized whole cow's milk was inoculated with two levels of bacterium (103 and 105 cfu/ml). Two types of Iranian White Cheese prepared with and without S. aureus (control). In control group samples prepared with and without starter. S. aureus was enumerates during the manufacture and storage period. Selected colonies of S. aureus were confirmed biochemically. Cheese was also examined periodically for total solids, moisture, salt contents and pH values. When the S. aureus counts reached to 106 cfu/ml, the samples were examined for enterotoxin production using ELISA kit. Results showed an increase in the number of S. aureus in the beginning of the ripening period and decreased in the middle of the ripening period. In both samples staphylococcal count was higher than the initial level at the end of the ripening period. The pH value in all samples and in the control group (with starter), showed some changes. But in control group (without starter) decreased. In all groups the pH value was lower than the initial pH at end of the ripening period. Total solids decreased in inoculum samples, and increased in control groups. When the staphylococcal count reached to 107 cfu/ml in the first inoculum (105 cfu/ml), enterotoxin A and C were detected, but in the second inoculum (103 cfu/ml) no enterotoxin was detected.

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**40.018**

**Enterococcal Prosthetic Joint Infections**

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*Background:* Enterococci are an unusual cause of prosthetic joint infection (PJI), and their intrinsic resistance to many antimicrobials make management difficult. Few series

from single centres have been published - we present our experience with 15 cases over a 6-year period.

*Methods:* The case notes of all patients with enterococcal PJI proved by culture of operative tissues received in 2002-2007 were reviewed, and their bacteriology, prophylaxis, treatment and outcomes assessed.

*Results:* 15 patients (mean age 76 years) had enterococcal PJI of which 7 were related to hip hemiarthroplasty, 5 to knee replacement and 3 to hip replacement. All received cefuroxime prophylaxis and gentamicin cement at joint placement. 7 cases occurred in the 5 years 2002—2006 inclusive, and 8 cases in 2007. The mean time from joint placement to tissue diagnosis was 93 days; mean follow-up time from tissue diagnosis was 454 days. In 5 cases the infection was polymicrobial. 11 of the isolates (73%) were high-level resistant to gentamicin, compared to 31% of other enterococcal isolates. None were glycopeptide resistant. There were 3 successful 2-stage revisions (all knees), 1 successful conservative management with prosthesis retention (knee). Of the remaining patients, 4 remain on long term antibiotics (all hips), 4 have died (all within 100 days of tissue diagnosis) and 3 are still under active treatment.

*Conclusion:* Enterococcal PJI has risen at our institution, and enterococci are now the commonest isolates from PJI. Current perioperative prophylaxis does not cover this organism adequately. Despite aggressive surgical and antibiotic treatment only 20% of patients had successful 2-stage revisions, and 7% successful conservative management with prosthesis retention. Antibiotic treatments consisted of prolonged courses of amoxicillin or glycopeptide, but rarely gentamicin as most isolates manifested high-level resistance. Despite lengthy antibiotic courses and surgical intervention, enterococcal PJI has a poor prognosis.

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**40.019**

**Lack of Association of Interleukin-8 Gene Polymorphism with *Helicobacter pylori*-Induced Gastritis in Iranian Patients**

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*Background: Helicobacter pylori* is a major cause of neoplastic and inflammatory gastroduodenal diseases of the stomach. Recently cytokine gene polymorphisms and *H. pylori* have been linked to different gastric diseases. In this study we determined the role of host Interleukin-8 (−251A/T) gene polymorphism in the development of gastritis in the population of southern Iran.

*Methods:* We genotyped IL-8 (−251A/T) gene polymorphism in 54 *H. pylori* infected individuals with gastritis and 337 normal individuals using polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP). The diagnosis of gastritis was established on the basis of endoscopic and pathologic findings.

*Results:* No significant differences in allele and genotype frequencies of IL-8 (−251A/T) were found among our study groups in comparison with the control group.

*Discussion:* Our analysis did not reveal a significant difference between the frequencies of IL-8 (−251) genotypes and alleles which might show that this genotype may be an independent risk factor for gastritis in the population under our study. However, we suggest that this study to be performed on larger group of patients; also analysis of polymorphism in other positions of IL-8 gene is recommended.

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**40.020**

**Analysis of Blood Cultures in Argolis Greece**

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*Objectives:* To study the blood cultures at the General Hospital of Argos, Greece during the period 01/01/05 until 31/10/2007.

*Methods:* 791 blood cultures were studies. The identification and the antimicrobial susceptibility tests were performed using the analysis Bact/ALERT and the automat system VITEK 2 compact (BIOMERIEUX).

*Results:* From the 791 blood cultures 661 (83,56%) were negative and 130 (16,43%) were positive. 180 cultures were examined in 2005 (145 (80,55%) negative and 35 (19,45%) positive), 251 in 2006 (209 (83,26%) negative and 42(16,74%) positive). In 2007 were examined 360 blood cultures (307(85,27%) negative and 53(14,73%) positive). *Staphylococcus epidermidis* was the most common isolated bacterium [30 samples (23,07%)], followed by E. coli [25 samples (19,23%)], *Brucella melitensis* [21 samples (16,15%)], *Staphylococcus aureus* [12 samples (9,23%)], *Pseudomonas auroginosa* [7 samples (5,38%)], Staphylococcus simulans [7 samples (5,38%)], Staphylococcus hominis [6 samples (4,62%)], *Klebsiella pneumoniae* [3 samples (2,3%)], *Staphylococcus haemolyticus* [3 samples (2,3%)], Staphylococcus articularis [3 samples (2,3%)], *Enterobacter cloacae* [3 samples (2,3%)], *Enterococcus faecalis* [2 samples (1,53%)].

*Conclusions:* A gradual increase in the number of blood cultures was observed during this period of time which also concluded in the decrease of the rate of positive cultures respectively. From the 130 positive blood cultures 51,53% (67) were gram positive bacterias and 48,47% (63) were gram negative. The most common isolated bacterium was *Staphylococcus epidermidis* which may have been due to sample contamination. A significant number of *Brucella melitensis* was isolated (21 samples) fact that corresponds to the epidemic data of the region.

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